AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Previously Amended) The method of claim 21, wherein said data for said plurality of customer locations includes travel time and cost to transfer a part from each of said plurality of stocking locations to each of said customer locations.

3. (Currently Amended) A method of determining inventory levels of parts for a plurality of stocking locations within a neighborhood of a primary location, wherein said parts are normally stocked at more than one of said stocking locations, said method comprising:

providing data for plurality of customer locations, unit price of said parts, request rates for each of said parts for each of said customer locations, handling costs for each of said stocking locations, and travel time and transportation cost between said stocking locations, wherein said request rates include a probability distribution for one or more of said request rates;

specifying a parts procurement time performance measure for transfer of said parts from said plurality of stocking locations to said plurality of customer locations, wherein said parts procurement time performance measure comprises the percentage of parts in said request rates which can be transferred from any said stocking location to each respective said customer location within a pre-specified time, and wherein equipment requiring one

or more of said parts is installed at one or more of said plurality of customer locations;

entering said data and said performance measure into an optimization computer program;

computing said inventory levels of said parts for said plurality of stocking locations using said optimization computer program; and

ordering sufficient numbers of said parts to maintain said inventory levels at said plurality of stocking locations, wherein said inventory levels are such that said performance measure is met.

4. (Original) The method of claim 3, wherein said probability distribution is a Poisson distribution.

5. (Cancelled)

6. (Currently Amended) A method of determining inventory levels or parts for a plurality of stocking locations within a neighborhood of a primary location, wherein said parts are normally stocked at more than one of said stocking locations, said method comprising:

providing data for a plurality of customer locations, unit price of said parts, request rates for each of said parts for each of said customer locations, handling costs for each of said

stocking locations, and travel time and transportation cost between said stocking locations;

specifying a parts procurement time performance measure for transfer of said parts from said plurality of stocking locations to said plurality of customer locations, wherein said parts procurement time performance measure comprises the percentage of parts in said request rates which can be transferred from any said stocking location to each respective said customer location within a pre-specified time, wherein said parts are grouped by importance into a plurality of groups and said pre-specified time comprises a corresponding plurality of times, and wherein equipment requiring one or more of said parts is installed at one or more of said plurality of customer locations;

entering said data and said performance measure into an optimization computer program;

computing said inventory levels of said parts for said plurality of stocking locations using optimization computer program; and

ordering sufficient numbers of said parts to maintain said inventory levels at said plurality of stocking locations, wherein said inventory levels are such that said performance measure is met.

7. (Original) The method of claim 6, wherein inventory levels are computed to minimize overall cost while meeting or exceeding said plurality of times.

8. (Previously Amended) The method of claim 21, wherein said optimization computer program is a mixed integer optimization program.

9. (Previously Amended) The method of claim 21, wherein said inventory levels are computed to meet a total inventory cost while maximizing the percentage of said parts in said request rates which can be transferred from any said stocking location to each respective said customer location within a pre-specified time.

10. (Previously Amended) The method of claim 21, further comprising computing an estimated time for each part to be transferred from any said stocking location to each respective said customer location for each of said parts in said request rates.

11 - 18 (Cancelled)

19. (Currently Amended) A computer program product for instructing a processor to determine inventory levels of parts for a plurality of stocking locations <u>within a neighborhood of a primary location, wherein said parts are normally stocked at more than one of said stocking locations</u>, said computer program product comprising;

a computer readable medium;

first program instruction means for providing data for a plurality of customer locations, unit price of said parts,

request rates for each of said parts for each of said customer locations, handling costs for each of said stocking locations, and travel time and transportation cost between said stocking locations, wherein said request rates include a probability distribution for one or more of said request rates;

second program instruction means for specifying a parts procurement time performance measure for transfer of said parts from said plurality of stocking locations to said plurality of customer locations; wherein said parts procurement time performance measure comprises the percentage of parts in said request rates which can be transferred from any said stocking location to each respective said customer location within a pre-specified time, and wherein equipment requiring one or more of said parts is installed at one or more of said plurality of customer locations;

third program instruction means for providing said data and said performance measure to an optimization computer program;

fourth program instruction means for computing said inventory levels of said parts for said plurality of stocking locations using said optimization computer program; and

fifth program instruction means for ordering sufficient numbers of said parts to maintain said inventory levels at said plurality of stocking locations, wherein said inventory levels are such that said performance measure is met; and wherein

all said program instruction means are recorded on said medium.

20. (Cancelled)

21. (Currently Amended) A method of determining inventory levels of parts for a plurality of stocking locations within a neighborhood of a primary location, wherein said parts are normally stocked at more than one of said stocking locations, said method comprising:

providing data for a plurality of customer locations, unit price of said parts, request rates for each of said parts for each of said customer locations, handling costs for each of said stocking locations, and travel time and transportation cost between said stocking locations;

specifying a parts procurement time performance measure, wherein said parts procurement time performance measure comprises the percentage of parts in said request rates which can be transferred from any said stocking location to each said respective customer location within a pre-specified time, and wherein said parts are grouped by importance into a plurality of groups and said pre-specified time comprises a corresponding plurality of times;

entering said data and said performance measure into an optimization computer program;

computing said inventory levels of said parts for said plurality of stocking locations using said optimization computer program; and

ordering sufficient numbers of said parts to maintain said inventory levels at said plurality of stocking locations.

22. (Previously Presented) The method of claim 21, wherein inventory levels are computed to minimize overall cost while meeting or exceeding said plurality of times.

23. (Cancelled)